

Comments before Planning Board 11-13-18

Issue 1: Ordinance Classification

1. Oil and Gas Exploration, Development, and Operations should also be regulated as an industrial use. It is a generator of gas supply which is later distributed. It is a mining activity. The proposal to allow Oil and Gas Extraction in all zones is a downzoning, and is inappropriate.
2. If you examine the Standard Industrial Classification System, Section B is listed as Mining. Under Section B Mining are four subsections: 10 Metal Mining, 12 Coal Mining, 13 Oil and Gas Extraction, and 14 Mining and Quarrying – Non-metallic. If asked to find where in the Table of Permitted Uses the activity Oil and Gas Extraction is listed, a Zoning Administrator would likely look at the SIC, as the SIC lists virtually all uses.
3. Mining in the Table of Permitted Uses is listed as CU in the industrial zone. A clarifying note might be added to reduce the possibility of disputes, but essentially this use is already in the Ordinance.
4. The fact that the state by law has restricted counties from prohibiting Oil and Gas Extraction is not unusual. Basically, a county has to allow places for all uses to include everything from sanitary landfills to XXX dance clubs. The only difference here is the possibility of review by the Oil and Gas Commission. If the use is already regulated in our Ordinance, the Commission would have no jurisdiction for review.

Issue 2: Water Protection

1. Lake Jordan and Lake Harris must be protected.
2. Watershed regulations may protect Lake Jordan, but they do allow mining activities in the Use Appendix. Whether the county would zone an area industrial and grant a Conditional Use Permit in the Lake Jordan Watershed Area is unlikely, but not prohibited.
3. Lake Harris may be protected by the Nuclear Regulatory Commission, however, whether those regulations do so, was not known at the public hearing.
4. If satisfactory answers to these questions cannot be obtained, an overlay zone which does not allow the proposed list of CU uses, might be considered.

The following provides a simple Zoning Ordinance change that in my opinion would classify oil and gas extraction as industrial.

Zoning Ordinance, Section 10.13 page 46 in part: *changes in italic*

10.13 Table 1: Zoning Table of Permitted Uses Notes:

Compact Communities (CC) uses are listed separately in the Compact Communities Ordinance

Many commercial activities that are otherwise prohibited in this table may be allowed as Home Occupations if they meet the requirements of that section.

In the event a use is not listed in this table, the Zoning Administrator will provide in writing an interpretation of use category for the proposed use, and may consult the Standard Industrial Classification System (SIC) in this determination.

Zoning Ordinance, Section 10.13 page 53, in part: *changes in italic*

Zoning District	R5	R2	R1	O&I	B-1*	NB	CB	RB	IL	IH
Mining ² (metal mining, coal mining, oil and gas extraction, mining and quarrying non-metallic)										CU

The following provides for a Harris Lake Watershed – Nuclear Facility overlay patterned on the existing watershed ordinance. A map would also have to be drawn:

Watershed Ordinance, Section 109, Page 7 in part: *changes in italics*

Critical Area – Nuclear Facility The area adjacent to a cooling water supply intake or reservoir where risk associated with compromise is greater than from the remaining portions of the watershed. The critical area-nuclear facility is defined as extending either one mile from the normal pool elevation of the reservoir in which the cooling water intake is located or to the ridge line of the watershed (whichever comes first); or one mile upstream from the intake located directly in the stream or river (run-of-the-river), or the ridge line of the watershed (whichever comes first). Local governments may extend the critical area-nuclear facility as needed. Major landmarks such as highways or property lines may be used to delineate the outer boundary of the critical area-nuclear facility if these

landmarks are immediately adjacent to the appropriate outer boundary of one mile.

Watershed Ordinance, Section 301, Page 17 in part: *changes in italics*

(J) Harris Lake Watershed – Nuclear Facility: This area consists of all lands and waters draining to the Harris Lake Reservoir. It is depicted on the Watershed Protection Map, and is the area subject to the riparian buffer requirements set forth in Section 304(J). The allowed uses and density and built-upon limits for the Harris Lake – Nuclear Facility Watershed are those listed in Section 302 (A). Cluster Development under Section 303 of this ordinance is not allowed in the Harris Lake Watershed- Nuclear Facility. Other requirements and procedures of the Watershed Ordinance shall also apply to the Harris Lake Watershed – Nuclear Facility, in no case, however, shall any variance, exception or use be approved in contradiction to Section 401 Public Health.

This is as simple as possible an amendment. Jason may have suggestions as my depth of knowledge on watershed is shallow – pun intended.

Jim Elza

11-18-18

Charles Ritter
285 Beckingham Loop, Cary (Chatham County)

Comments to the Zoning Ordinance Revisions (Oil & Gas Development)

What is known and Well Documented

- Fact #1 - Fracking has caused thousands of serious issues worldwide such as:
 - Earthquake incidents
 - Polluted drinking water with carcinogens (wells & reservoirs)
 - Brain damaged children
 - Infrastructure (roads, bridges, etc.) damaged beyond repair due to very heavy equipment and trucks, etc.
- Fact #2 - Horizontal fracking can extend 2-3 miles horizontally
- Fact #3 - There are no restrictions preventing fracking near or under Jordan Lake Reservoir (by the Army Corp of Engineers or NC)
- Fact #4 - Shearon Harris Nuclear Power Plant is situated near or under the Jonesboro fault line
- Fact #5 - There are no restrictions preventing fracking near or under Shearon Harris Power Plant (by the NRC or NC)
- Fact #6 – Harris Lake provides the cooling for the nuclear power plant. There are no restrictions preventing fracking under Harris Lake (by NRC or NC)

Prevent the Risk of Catastrophe in Chatham

In addition to serious health and environmental issues other areas have experienced, Chatham County is UNIQUE in that:

- Shallow (vertical) fracking near Jordan Lake Reservoir has a high probability of contaminating the water table and therefore our reservoir and wells
 - *Do we really want to risk our drinking water?*
- Earthquakes near any power plant pose potential risks
- Shearon Harris is not ANY nuclear power plant. It would be the ONLY place in the US with the juxtaposition of a Nuclear Power Plant, a Fault line and Fracking (per the NRC) - it is a PERFECT STORM
 - *Do we really want to risk a nuclear event?*

RECOMMENDATIONS

For Areas Not Properly Addressed

- Put in place a 3 mile “no fracking zone” (setback) around
 - Jordan Lake Reservoir
 - Shearon Harris Nuclear Power Plant
 - Harris Lake
- I know addressing fracking properly in Chatham can potentially cause issues with the state of NC
- Not addressing fracking could cause serious and long lasting serious environmental and health issues for the residents of Chatham County
- *Do the right thing and please protect us, it is your responsibility*
- *You have our support!*

Dan Garrett

From: Marie Corrigan <mcorrigancp@gmail.com>
Sent: Thursday, November 29, 2018 3:31 PM
To: Dan Garrett
Subject: [External Sender] Fracking

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Dear Mr. Garrett,
Please protect us. I live within 11 miles of the Shearon Harris Nuclear Power Plant and my two young granddaughters live much closer to it. I do not want to live in fear of a fracking related earthquake. I also would like clean drinking water. As it is, from what I read, we all have a 40% chance of getting cancer in our lifetime. Let's not raise the odds.

PLEASE:

Put in place a 3 mile "no fracking zone" (setback) around

- 1) Jordan Lake Reservoir
- 2) Shearon Harris Nuclear Power Plant
- 3) Harris Lake

Thank you so much. We need your help!

Marietta Corrigan
Cary, NC

Dan Garrett

From: katherine belcher <katherine1940@gmail.com>
Sent: Thursday, November 29, 2018 4:32 PM
To: Dan Garrett
Subject: [External Sender] fracking

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I would to recommend to the Chatham County Planning Board that a 3 mile "no fracking zone"around:

- 1.Jordan Lake Reservoir
- 2.Shearon Harris Nuclear Power Plant
- 3.Harris Lake

Please whatever you can to protect our county and residents.

Thank you, Katherine Belcher

212 Elverson Pl.
Cary,NC 27519

Dan Garrett

From: Susan Kear <susankear@gmail.com>
Sent: Friday, November 30, 2018 7:10 AM
To: Dan Garrett
Subject: [External Sender] Fracking

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We of Chatham County must stand up to the state for its egregious support of fracking.

Susan Kear
756 Eldridge Loop
Cary, NC. 27519

Sent from my iPhone

30 November 2018

The Planning Board
Chatham County
Pittsboro, NC

Dear Planning Board Members:

In regard to the on-going Zoning Ordinance Revisions and the deliberations about them by Chatham County's Planning Board, this letter makes the following recommendations based on the rights and duties of the Board and the County to protect the air, water, and health of its residents:

- Extend the moratorium by at least a year. (Any legal costs for Chatham County in seeking an extension will be far exceeded by the costs to the county's infrastructure that fracking would bring.)
- Require by ordinance the regulations (in addition to the state's) that are needed to protect the air, water, and health of Chatham County's residents.
- Require by ordinance at least a three-mile setback (or no-fracking-zone) around each of the following: Jordan Lake, Harris Lake, and Shearon Harris Nuclear Power Plant.

The reasons for these recommendations are multiple and significant because the scientific research not paid for or influenced by the fracking industry shows overwhelmingly its many dangers. With respect to Chatham County in particular, these dangers are described below.

Contamination of Jordan Lake as well as water tables and wells by frack chemicals, which include carcinogens, and by frack wastewater, which includes radon, excessive salinity and other pollutants, would result. The threat to Jordan Lake would result because horizontal fracking often extends 2-3 miles. Hence, the recommendation (above) for at least a three-mile setback around Jordan Lake and Harris Lake. (This setback would probably not be enough because the Reelwell drilling method, which supplies force on the drill bit (via hydraulics) instead of the drill-string, makes much longer horizontal wells possible. Reelwell says its present length-limit for horizontal wells is 7.4 miles.)

Frack contamination of water tables and wells in our county would result because the distance between the fracked shale and the water tables is far too short. This insufficient distance would make contamination likely from pollutants in frack spills and from frack chemicals and wastewater migrating from faulty wells and also from wells made faulty over time by corrosion and by cracking under the huge geological pressures exerted upon them. Slight geological movements can breach wells and thereby allow frack chemicals and wastewater, much of which remain in the wells, to migrate over time the short distance from shale to water tables.

Because the scientific evidence shows that fracking as well as the disposal of frack wastewater underground causes earthquakes, it would be significantly *imprudent* for fracking to be allowed near the Jonesboro Fault line, which lies close to the Shearon Harris Nuclear Power Plant. The plant stores in cooling ponds one of our nation's largest collections of spent fuel rods, which will remain radioactive for about 10,000 years. But cooling ponds are not the safest way to store such rods. Any significant breach of the ponds by an earthquake, for example, would release dangerous radiation for several miles around. The unlikelihood of such an event would be far outweighed by the gravity of its harmfulness.

The dangers posed, then, not only by frack contamination of Jordan Lake as well as water tables and wells in Chatham County but also by an earthquake resulting from frack activities near the Jonesboro Fault and the Shearon Harris plant are reasons enough for extending the moratorium on fracking, for passing special ordinances to regulate it and safeguard our air, water and health, and for requiring at least a three-mile no-frack-zone around Jordan Lake, Harris Lake, and the nuclear power plant.

Respectfully submitted,

Dennis M. Welch, Ph.D.
Professor Emeritus, Virginia Tech
701 Eldridge Loop
Cary, NC 27519

Dan Garrett

From: Marjorie Budd <mlbudd655@gmail.com>
Sent: Friday, November 30, 2018 4:28 PM
To: Dan Garrett
Subject: [External Sender] Comments on Zoning to Prevent Fracking

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We see an urgent need to strengthen the zoning ordinance revisions. We in Chatham County face special and unique risks from the dangers of fracking. Chatham County zoning regulations can offer us the only protection possible. We cannot legally ban fracking. The state's regulations on fracking are weak and it's ability to monitor and enforce them is limited.

The important fracking area in NC is in our backyard, the Sanford sub-basin in Lee and adjoining counties including Chatham, Durham, Moore, and Wake. Jordan Lake, a major source of drinking water for hundreds of thousands of us, is located in the middle of this fracking area. The fragile geology of the area makes it highly likely our drinking water would be contaminated for years to come. Even more alarming, the Shearon-Harris Nuclear power plant, the nation's largest repository of highly radioactive nuclear waste, is also located in the fracking area and near a fault line. Fracking causes earthquakes, now documented in several states. A fracking-generated earthquake could unleash a nuclear disaster that would affect millions us in the triangle for generations to come. The state's regulations will not stop earthquakes or move a water table. We must prevent fracking in these areas.

For the health and safety of its citizens, Chatham County must create 3-5 mile setbacks around Jordan Lake, the Shearon Harris Nuclear Power Plant and its adjoining Harris Lake. It can and must do so through comprehensive zoning regulations.

Thank you,
Marjorie and Edwin Budd
803 Allforth Place
Cary, NC 27519
Chatham County Residents

Dan Garrett

From: perry zevin <uofc1956@gmail.com>
Sent: Sunday, December 2, 2018 10:35 AM
To: Dan Garrett
Subject: [External Sender] Fracking Please Please do everything in your power to protect our environmentFracking is dangerous for us and the future

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The potential of destroying our drinking water and the chance of nuclear disaster WOULD BE A DISASTER

Cary resident

Dan Garrett

From: Jules Epstein <jeps264379@aol.com>
Sent: Monday, December 3, 2018 9:28 AM
To: Dan Garrett
Subject: [External Sender] Fracking

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We agree that fracking may endanger our drinking Water from Jordan Lake and should not be allowed Jules And Jean Epstein

Sent from my iPad

Dan Garrett

From: Richard Martin <scubadiveresq@gmail.com>
Sent: Tuesday, December 4, 2018 12:48 PM
To: Dan Garrett
Subject: [Ext] Fracking

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Mr. Garrett

I am a Chatham County resident. I am extremely concerned about the prospect of fracking beginning in Chatham.

I think it will adversely affect our way of life & endanger the population. Fracking is currently allowed under Jordan Lake & near the nuclear power plant both of which are recipes for disaster.

Please do what you can to prevent fracking from coming here.

Thank you.

Richard Martin

Beckingham Loop

Cary

Jeannie Ambrose Public Input

Public Comments

Planning Board: Zoning Ordinance Amendment: Sec. 10.13

2018-DEC 5

Jeannie Ambrose

Wow - churches a problem for residents!

The Chatham County Comprehensive Plan was adopted Nov. 20th, 2018. The number one goal that was discovered from broad community input is to: Preserve the rural character and lifestyle of Chatham County. This response is a reflection of the unique character of our diverse local communities. The proposed ordinance amendment, Section 10.13, to allow Conditional Use Permits in *all* zoning districts for Oil and Gas Exploration and Development and Natural Gas Compressor Station does not align with the vision of its citizenry. If adopted, the oil and gas industry appears to have been given a competitive advantage over other types of permitted uses. This likely sets a precedent for other new and existing industries to seek similar treatment in the future.

Over a year ago, the Chatham Co. Board of Commissioners received the Chatham County North Carolina Hydraulic Fracturing Background Assessment submitted by environmental consultant Charles Yuill. In his report, he stated: "Hydraulic fracturing is unlikely to occur in Chatham County." If the prospect for drilling for natural gas in Chatham County is minimal, is it reasonable to open up the entire county for this particular use?

Local govt. ordinances should not treat the O&G industry any differently from other uses that are allowed. The Table of Permitted Uses in the current zoning ordinance lists mining as a permitted use in the Industrial Heavy zones of Chatham County. If an operator wants an O&G operation in any zone that is not already designated IH, they could file a petition for the proposed district area to be rezoned to IH. After public meetings and hearings for citizen input on rezoning, a decision is made. If approved, the operator submits a CUP for final determination. The CUP may be subject to additional requirements. And in certain cases, the specialty services of a consultant may also be needed. This stepwise procedure with required conditions is appropriate for O&G activities. It allows a determination based on local site-specific characterization. This is especially important since Chatham County does not have long-term experience with this particular type of mining and its potential for harming the natural resources, human health, and economy in our

community. And there is no doubt that if fracking comes to Chatham County or Lee County, it will have an impact on the character of the local communities.

It is so unfair for local govt. zoning ordinances to give preferential treatment to the O&G industry. Chatham County should not favor the oil and gas industry and its ancillary facilities over any other businesses approved only in IL and IH zoning districts. The end result of amending the zoning ordinances should be to create a viable framework that supports the development of all types of industry. However, someone living in a residential district should not be forced to accept an industry that does not meet the established countywide zoning criteria. With long-term planning that is consistent with the guidelines provided in the Comprehensive Plan, we should be able to retain some of the unique rural character our communities want to preserve.

high impact

Links to Local Ordinance Preemption Hearings

1. SUBCHAPTER 05H – OIL AND GAS CONSERVATION SECTION

[http://reports.oah.state.nc.us/ncac/title 15a - environmental quality/chapter 05 - mining - mineral resources/subchapter h/subchapter h rules.pdf](http://reports.oah.state.nc.us/ncac/title_15a_-_environmental_quality/chapter_05_-_mining_-_mineral_resources/subchapter_h/subchapter_h_rules.pdf)

SECTION .0800 – PREEMPTION HEARING PROCEDURE

15A NCAC 05H .0801 PURPOSE AND SCOPE

The rules of this Section establish procedures the Commission shall use in reviewing petitions for limited preemption of a local ordinance pursuant to the authority set forth in G.S. 113-415.1.

History Note: Authority G.S. 113-415.1; 150B, Article 3; Eff. March 17, 2015.

2.

SUBCHAPTER V. OIL AND GAS CONSERVATION.

Article 27.

Oil and Gas Conservation.

GS § 113-415.1. Local ordinances regulating oil and gas exploration, development, and production activities invalid; petition to preempt local ordinance.

https://www.ncleg.net/EnactedLegislation/Statutes/PDF/ByArticle/Chapter_113/Article_27.pdf

Martha Girolami Public Input.

Chatham Planning Board Meeting
December 4, 2018

A Legislative Public Hearing request by the Chatham County Board of Commissioners to consider amendments to Section 10.13, Table of Permitted Uses; 11.2 Specific requirements; 11.3, Environmental Impact Assessment; and 17.9, Additional Information for Certain Conditional Use Permits (new section) to incorporate standards for high impact land use activities, including oil and gas exploration.

I think the Zoning Ordinance as it stands today needs to add the two new uses^{to} 10.13 which are (1) Oil and Gas Exploration and Development and (2) Compressor Stations and these uses must be allowed only in Heavy Industrial Zoning District with a CUP. Also the addition of section 17.9 (delete the last line) is beneficial. No other changes are necessary.

This document lists in order of importance items that should be changed or included in the proposed zoning ordinance in my opinion.

1. The proposal that the two new uses (1) oil and gas exploration and development and (2) natural gas compressor stations are to be allowed as a CUP in ALL zoning districts is a mistake and unfair.

Most of Chatham County does not know very much about Fracking and associated gas infrastructure. Certainly no County resident was EVER expecting that this polluting heavy industry would be allowed in Residential zoning districts with a CUP. The recent all County zoning expansion ordinance was very disruptive to our County. Many Citizens were upset by being zoned R1. The inclusion of these uses into our Zoning Ordinance could perpetuate and inflame more discord. Citizens must believe that Zoning districts are meaningful and protective. Zoning districts will not be meaningful and protective if Oil and Gas exploration and development are added to all zoning districts everywhere in Chatham County as a CUP.

That these two new uses will require a CUP is no guarantee of protection that the Oil and Gas Commission will not move to pre-empt our ordinance. The character, politics and money will determine the outcome—factors we cannot control.

How will the Chatham/Cary land use plan be affected? Cary citizens in Chatham will be surprised too learn that with a CUP Compressor stations and Oil and Gas Exploration & Development would be included in areas zoned Low and Very Low Density Residential.

Chatham County would be giving preferential treatment to these two uses by allowing them in all zoning districts with CUP. All heavy industries to date in the Chatham Zoning Ordinance are required to exist in a Heavy Industrial zone with CUP. The NC statute GS113-415.1 (f) requires that oil and gas exploration and development must be regulated under conditions that are "generally applicable to development"—i.e. all development projects are to be treated the same. Oil and Gas Exploration

and Development and Compressor Stations uses under this proposal are given **privileged** status.

2. The two new uses (1) oil and gas development and (2) natural gas compressor stations must require **rezoning** to heavy industrial with CUP as described in Section 19 of the Chatham County Zoning Ordinance.

This required rezoning to heavy industrial zoning district with CUP will require a public hearing. Citizen participation in this legislative process is very important since it does not limit standing to "experts" as does a quasi-judicial hearing which is part of a CUP process. "Non expert" opinion and evidence would be able to be submitted for consideration. Chatham citizens and the applicant would be contesting the rezoning on a more equal footing.

3. Environmental Impact Assessment CUP
If a development expands to exceed 10 acres at some time after receiving a CUP, an EIA should be required. This increase in project size should also trigger another CUP for the entire and expanded project.

If the Applicant has revealed in its Master Plan all activities and anticipated expansions and O&G business relationships within the County concerning Oil and Gas Development and these have been adequately considered in the original CUP, then a second or additional CUP will not be required. This is an important requirement to avoid segmentation of projects and sequential proposal of units less than 10 acres.
"Considerable expense" invested in the property should not be considered as relevant.

4. Ten Year Master Build Out Plan for Oil and Gas Exploration and Development Sites and Compressor Stations.

This Plan would allow a full picture of activities planned for the site —drilling, fracking, chemical storage, sand storage, gas storage and purification, potential LNG, Plastics manufacturing, Helium separation and purification industries, wastewater storage and treatment, water impoundments or tanks, flaring, roads, pipes for water, wastewater and gas, etc. This Master Plan could be part of the study requirements in 17.9. It will allow for improved emergency response information and preparedness.

This Plan will also help to prevent segmentation of projects and sequential proposals of units less than 10 acres.

Martha Girolami
December 4, 2018